

IN THE CLAIMS:

1. (Currently Amended) A vibrating portable electronic device (MT), comprising:
  - a body (15);
  - a driving axle (13A) having a rotational axis about which it rotates, the driving axle being rotatably supported by the body;
  - a weight unit (12A&12B;61A&61B) comprising at least one weight (12A,12B;61A,61B) element, the weight unit having a total mass  $m$  and being coupled to the driving axle (13A) for being rotated about the rotational axis of the driving axle;
  - wherein the weight unit (12A&12B;61A&61B) has a mass ~~centre~~ ~~center~~ with an offset  $r$  with respect to the rotational axis, so that the vibration of the portable device assumes an amplitude of vibration depending on the product of the offset  $r$  and the mass  $m$ ; and
  - an electrical motor (11A) for rotating the driving axle; ~~characterised~~ ~~characterized~~ in that the electrical motor (11A) is adapted to adjust the product of the offset  $r$  and the mass  $m$ .
2. (Currently Amended) A vibrating portable electronic device according to claim 1, ~~characterised~~ ~~characterized~~ in that the weight unit comprises at least two weight elements (12A,12B).
3. (Currently Amended) A vibrating portable electronic device according to claim 2, ~~characterised~~ ~~characterized~~ in that the electrical motor (11A) is adapted to adjust the angular disposition of the weight elements (12A,12B) in order to change the offset  $r$ .
4. (Currently Amended) A vibrating portable electronic device according to claim 2 ~~or 3~~, ~~characterised~~ ~~characterized~~ in that the weight elements (12A,12B) are on a same axial side with

regard to the electrical motor (11A).

5. (Currently Amended) A vibrating portable electronic device according to ~~any of the claims 1 to 3~~ **claim 1**, ~~characterised~~ **characterized** in that the weight unit comprises a weight element (12A,12B) on each side of the electrical motor (11A).

6. (Currently Amended) A vibrating portable electronic device according to ~~any of claims 2 to 5~~ **claim 1**, ~~characterised~~ **characterized** in that the device further comprises another electrical motor (11B) and a separate driving axle (13B) for the another electrical motor.

7. (Currently Amended) A vibrating portable electronic device according to claim 6, ~~characterised~~ **characterized** in that the device preferably comprises a controller (CPU) for controlling the operation of the electrical motors (11A,11B).

8. (Currently Amended) A vibrating portable electronic device according to ~~any of the preceding claims~~ **claim 1**, ~~characterised~~ **characterized** in that the electrical (11A) motor is capable of adjusting the product substantially down to zero.

9. (Currently Amended) A vibrating portable electronic device according to claim 2 ~~and any of the preceding claims~~, ~~characterised~~ **characterized** in that the weight elements (12A,12B) have a common rotational axis and face each other.

10. (Currently Amended) A vibrating portable electronic device according to claim 2 ~~and any of the preceding claims~~, ~~characterised~~ **characterized** in that the device further comprises means (13A,12A2) for allowing the weight elements (12A,12B) to move with respect to each other in order to adjust said offset r.

11. (Currently Amended) A vibrating portable electronic device according to claim 10, ~~characterised~~ ~~characterized~~ in that the means (13A,12A2) for allowing the weight elements (12A,12B) to move with respect to each other is adapted to turn the weight elements to a different angular disposition about the driving axle (13A) and with respect to each other.

12. (Currently Amended) A vibrating portable electronic device according to claim 2 ~~and any of the preceding claims~~, ~~characterised~~ ~~characterized~~ in that the device further comprises a resilient member (51) for forming an angular torsion force that tries to change the angular disposition of the weight elements with respect to each other to a first angular direction.

13. (Currently Amended) A vibrating portable electronic device according to ~~claims 7 and 12~~ ~~claim 7~~, ~~characterised~~ ~~characterized~~ in that the controller (CPU) is adapted to adjust the rotating power of the electrical motors (11A,11B) so that a desired difference in rotating forces forms equal to the torsion force at the desired amount of the angular disposition.

14. (Currently Amended) A vibrating portable electronic device according to claim 2 ~~and 6 and any of the preceding claims~~, ~~characterised~~ ~~characterized~~ in that two different angular dispositions of weight elements (12A,12B) are realised by choice of a running electrical motor among the two electrical motors (11A,11B).

15. (Currently Amended) A vibrating portable electronic device according to ~~any of the preceding claims~~ ~~claim 1~~, ~~characterised~~ ~~characterized~~ in that the electrical motor (11A) is adapted to adjust the product responsive to at least one electrical signal.

16. (Currently Amended) A vibrating portable electronic device according to claim 15, ~~characterised~~ ~~characterized~~ in that the electrical signal is selected from a group consisting of: a ringing tone signal, an alarm signal, a notification signal, or a messaging signal.

17. (Currently Amended) A method for vibrating a portable electronic device comprising the steps of:

providing the device with a weight unit having a mass  $m$  and a mass ~~centre~~ ~~center~~;

providing the device with a driving axle and an electrical motor;

coupling the electrical motor, driving axle and weight unit;

rotating the weight unit around a rotational axis by the electrical motor using the driving axle;

positioning the mass ~~centre~~ ~~center~~ at an offset  $r$  with respect to the rotational axis for vibrating the device with an amplitude depending on the product of the offset  $r$  and the mass  $m$ ;

~~characterised~~ ~~characterized~~ in that the method further comprises the step of:

adjusting the product of the offset  $r$  and the mass  $m$  by the electrical motor rotating the weight unit.

18. (Currently Amended) A method according to claim 17, ~~characterised~~ ~~characterized~~ by said adjusting occurring during the rotating of the weight unit.

19. (Currently Amended) A method according to claim ~~17 or~~ 18, ~~characterised~~ ~~characterized~~ by the adjusting occurring in response to a triggering event selected from a group consisting of the following: the rotation speed of the weight unit changing to a predetermined level, the rotation speed of the weight unit

changing, a change in a melody being played by the portable electronic device, receiving a message, receiving a message from a particular sender, receiving a particular type of message, reaching a time of day, and reaching a date.

20. (Currently Amended) A method of messaging by vibrating a portable electronic device having coupled an electrical motor, a driving axle and a weight unit having a mass  $m$  with a mass ~~centre~~ center; the method comprising the steps of:

receiving a message;

rotating the weight unit around a rotational axis by the electrical motor using the driving axle;

positioning the mass ~~centre~~ center at an offset  $r$  with respect to the rotational axis for vibrating the device with an amplitude depending on the product of the offset  $r$  and the mass  $m$ ;

~~characterised~~ characterized in that the method further comprises the step of:

adjusting in accordance with the message the product of the offset  $r$  and the mass  $m$  by the electrical motor rotating the weight unit.